

DISEASE WATCH | IN THE NEWS

HIV 'super strain'

Public-health officials in New York took the unusual step in February of issuing a health alert over a single case of HIV infection. The case in question featured an individual in which the infection is believed to have progressed to full-blown AIDS within a short time scale of between 4 and 20 months. In addition to the speed of progression from infection to disease, despite the fact that the individual had not received any antiviral treatment, this strain of HIV is resistant to three of the four main classes of antivirals that are commonly used to treat HIV infection. The combination of multidrug resistance and rapid progression to disease prompted officials to issue the health alert as a 'wake-up call' to at-risk populations in the city. The overall significance of the case remains unclear, however, with some researchers believing it may prove to be an isolated case.

Reuters

Edible vaccine for HepB

Despite the availability of a subunit vaccine, hepatitis B remains a major health problem worldwide. In an effort to simplify immunization, researchers have been investigating the feasibility of producing an oral, edible vaccine. Previous work had established that an immune response was elicited in mice fed on transgenic potato tubers expressing the hepatitis B surface antigen (HbSAg). Now, the results of a randomized, double-blind, placebo-controlled clinical trial have been reported in *PNAS*. Of the 33 previously vaccinated volunteers involved in the trial to receive the edible vaccine rather than placebo, an increase in serum antibody titre to HbSAg was observed in 19 individuals. This prototype study indicates that an edible vaccine strategy for HepB may be worth pursuing. *PNAS*

**Avian influenza**

Avian influenza remains firmly at the top of the public-health agenda worldwide, with discussions on pandemic preparedness occurring in many countries. A report in *The New England Journal of Medicine* described a case of fatal H5N1 infection in a child in Vietnam, which indicates that the clinical spectrum of H5N1 infection is much broader than was previously thought. The patient initially presented with symptoms of gastroenteritis and encephalitis, with no respiratory symptoms. The diagnosis of H5N1 influenza was made when the virus was isolated from cerebrospinal fluid and faecal samples, as well as from serum and throat specimens. This unusual presentation indicates that the number of avian influenza cases may have been underestimated. The ongoing outbreak continues in Vietnam, and surveillance has been increased in Cambodia in response to the detection of the first human case of avian influenza in the country. The Chinese Ministry of Agriculture have issued a statement to the press detailing the development of an H5N1 vaccine, which they say provides effective protection in birds.

NEJM/Reuters

Rabies in transplant patients

The German Foundation for Organ Transplantation has announced that three cases of rabies have been diagnosed out of a total of six transplant recipients who received organs from a single donor in December 2004; two of the three cases have proved fatal. The diagnosis of rabies in the donor was made nearly 2 months after the organs had been donated. In Germany, rabies is an extremely rare disease; however, the donor is believed to have recently returned from a period of travelling in India, where rabies causes around 30,000 deaths per year. *BBC*

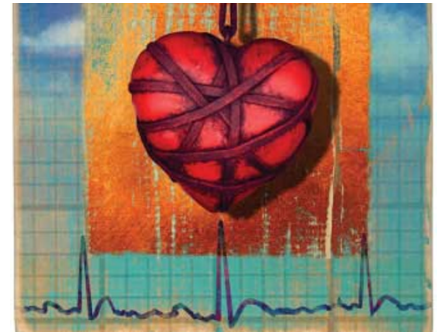
New HTLVs identified

Two new human T-cell lymphotropic viruses — HTLV-3 and HTLV-4 — have been identified in a study of cross-species retrovirus infections in individuals in Cameroon who regularly handle or eat bush meat. The results were revealed at the 12th Annual Retrovirus Conference in Boston, USA. Antibody screening revealed that of 930 individuals examined, 13 were infected with six different retroviruses, including the two new viruses. An estimated 25 million individuals worldwide are infected with HTLV-1 and -2.

Reuters

Viral aetiology for Kawasaki disease?

Kawasaki disease is the leading cause of acquired heart disease in children in the developed world, and mainly affects children who are less than 5 years old. The causative agent is unknown, and there are no diagnostic tests for the disease, with diagnosis relying entirely on clinical features. Previous evidence had indicated a possible infectious aetiology, and now in a study in the *Journal of Infectious Diseases*, a statistically significant association with a novel human coronavirus has been found. The virus — 'New Haven coronavirus' — was first identified in a large-scale screening for new coronaviruses in stored respiratory-tract secretions from children. *JID*

**Outbreak news**

Cholera. Cholera is still causing concern in the western regions of Uganda, with some affected individuals being refugees fleeing conflict in the Democratic Republic of Congo. Uganda also experienced a cholera outbreak last year, which was the first outbreak since 1997. In addition, a cholera alert has also been issued by Zimbabwean officials.

TB. A large outbreak of TB was reported in The Netherlands in February after a supermarket employee tested positive for the disease. More than 300 cases of possible latent TB were detected in an extensive contact-tracing exercise, in which more than 21,000 people were tested within a 5-day period.

Dengue. In an ongoing outbreak of dengue fever and dengue haemorrhagic fever, more than 200 cases have been reported in Timor-Leste.

Pneumonic plague. Health officials in the Democratic Republic of Congo have recorded more than 60 deaths in the worst outbreak of pneumonic plague in the country for 50 years.

In The News was compiled with the assistance of David Ojcius, University of California, Merced, USA.